

BALDY RIDGE ESTATES (PWSNO 1090004) SOURCE WATER ASSESSMENT REPORT

October 15, 2002



State of Idaho Department of Environmental Quality

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Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the act. This risk assessment is based on a land use inventory in the well recharge zone, sensitivity factors associated with how the well was constructed, aquifer characteristics, and the water sampling test results.

This report, *Source Water Assessment for Baldy Ridge Estates*, describes the public drinking water sources; the recharge zones and potential contaminant sites located inside the recharge zone boundaries. This assessment, taken into account with local knowledge and concerns, should be used as a planning tool to develop and implement appropriate protection measures for this public water system. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

Baldy Ridge Estates is a residential development located about 4 miles north west of Sandpoint, Idaho. Drinking water for 16 residential connections is supplied by 4 wells drawing from different depths in a bedrock formation. Drilled in the early 1980s, the wells range from 130 to 250 feet deep.

A ground water susceptibility analysis conducted by the Idaho Department of Environmental Quality ranked Baldy Ridge Estates Wells #1, #2, and #3 at low risk for contamination. Well #4 is moderately susceptible to all classes of regulated contaminants. Well #4 is at slightly greater risk because its surface seal terminates in gravel. The seals on the other wells reach bedrock. Risk factors associated with local geology added the most points to the final susceptibility scores.

This assessment should be used as a basis for determining appropriate new source water protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources. Water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

Most management measures are applications of common sense: attend to problems closest to the well first; protect the wellhead from damage; keep the 50 foot radius around the well clean; monitor septic systems in the recharge zone; encourage proper disposal of household hazardous waste and so on. Periodic updates of the potential contaminant inventory inside the well recharge zone boundaries noting locations of new housing, septic systems and roads are helpful as growth occurs.

For Baldy Ridge Estates, drinking water protection efforts should focus on maintaining full compliance with *Idaho Rules for Public Drinking Water Systems*. The system needs to develop a written operations and maintenance schedule so important tasks are attended to routinely. Every water system should develop an emergency response plan. There is a simple fill-in-the-blanks form available on the DEQ website to guide systems through the emergency planning process.

The Coeur d'Alene Regional office of the Department of Environmental Quality or the Idaho Rural Water Association can help systems develop a plan for protecting their drinking water.

SOURCE WATER ASSESSMENT FOR BALDY RIDGE ESTATES

Section 1. Introduction - Basis for Assessment

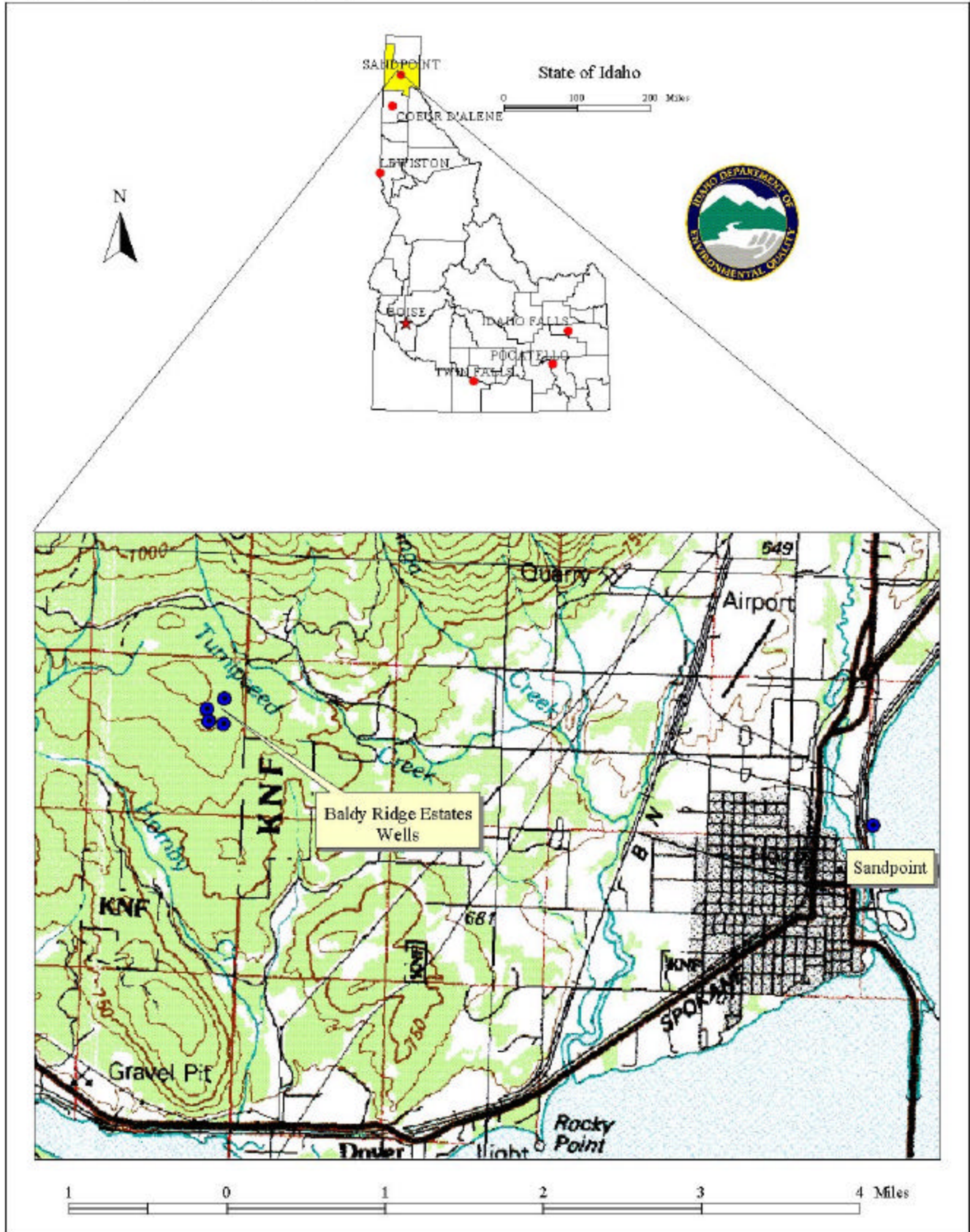
The following sections contain information necessary for understanding how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area and an inventory of significant potential sources of contamination identified within that area are included. The ground water susceptibility analysis worksheets used to develop this assessment are attached.

Level of Accuracy and Purpose of the Assessment

The Idaho Department of Environmental Quality (DEQ) is required by the U.S. Environmental Protection Agency (EPA) to assess every public drinking water source in Idaho for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. These assessments are based on a land use inventory inside the delineated recharge zones, sensitivity factors associated with how the well is constructed, and aquifer characteristics. The state must complete more than 2900 assessments by May of 2003. Because resources and the time available to accomplish assessments are limited, an in-depth, site-specific investigation for every public water system is not possible.

The results of the source water assessment should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system The ultimate goal of this assessment is to provide data to local communities for developing a protection strategy for their drinking water supply. The Idaho Department of Environmental Quality recognizes that pollution prevention activities generally require less time and money to implement than treating a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Wellhead or source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Figure 1. Geographic Location of Baldy Ridge Estates



Section 2. Preparing for the Assessment

Defining the Zones of Contribution - Delineation

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the well recharge area into time of travel zones indicating the number of years necessary for a particle of water to reach a well. DEQ used a refined computer model approved by the EPA to delineate the recharge zones for public water system wells. The computer model used data DEQ assimilated from a variety of sources including local well logs.

Baldy Ridge Estates is a residential development in rural Bonner County about 4 miles north west of Sandpoint (Figure 1). Drinking water and water for fire protection for Baldy Ridge Estates comes from 4 wells located within 800 feet of one another. Well #1, drilled in 1980 to a depth of 250 feet, produces approximately 6 gpm. Well #2 and #3, also drilled in 1980, are 130 and 210 feet deep respectively with estimated capacities of 8 gpm and 5.5 gpm. Well #4, drilled in 1981, is 158 feet deep and produces an estimated 10 gpm. Recharge zones delineated for the Baldy Ridge Estates wells each cover about 4 acres divided into 0-3, 3-6 and 6-10-year time of travel zones. The model used to delineate the well recharge zones shows ground water flowing toward the wells from a northwesterly direction (Figure2).

Identifying Potential Sources of Contamination

The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of ground water contamination. Inventories for public water systems in Idaho were conducted in two-phases. The first phase involved identifying and documenting potential contaminant sources inside individual source water assessment areas through the use of computer databases and Geographic Information System maps developed by DEQ. The maps and inventory lists were then sent to system operators for verification and correction in the second or enhanced part of the inventory process.

Figure 2, *Baldy Ridge Estates Delineation and Potential Contaminant Inventory* on page 7 of this report shows the location of the Baldy Ridge Estates wells, and the zones of contribution DEQ delineated for them. Most of the land inside the delineation boundaries is undeveloped forest.

Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. When a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation.

Section 3. Susceptibility Analysis

The susceptibility to contamination of all groundwater sources in Idaho is being assessed on the following factors:

- physical integrity of the well,
- hydrologic characteristics,
- land use characteristics, and potentially significant contaminant sources
- historic water quality

The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. A high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking. The Susceptibility Analysis Worksheets in Attachment A show in detail how the Baldy Ridge Estates wells scored.

Well Construction

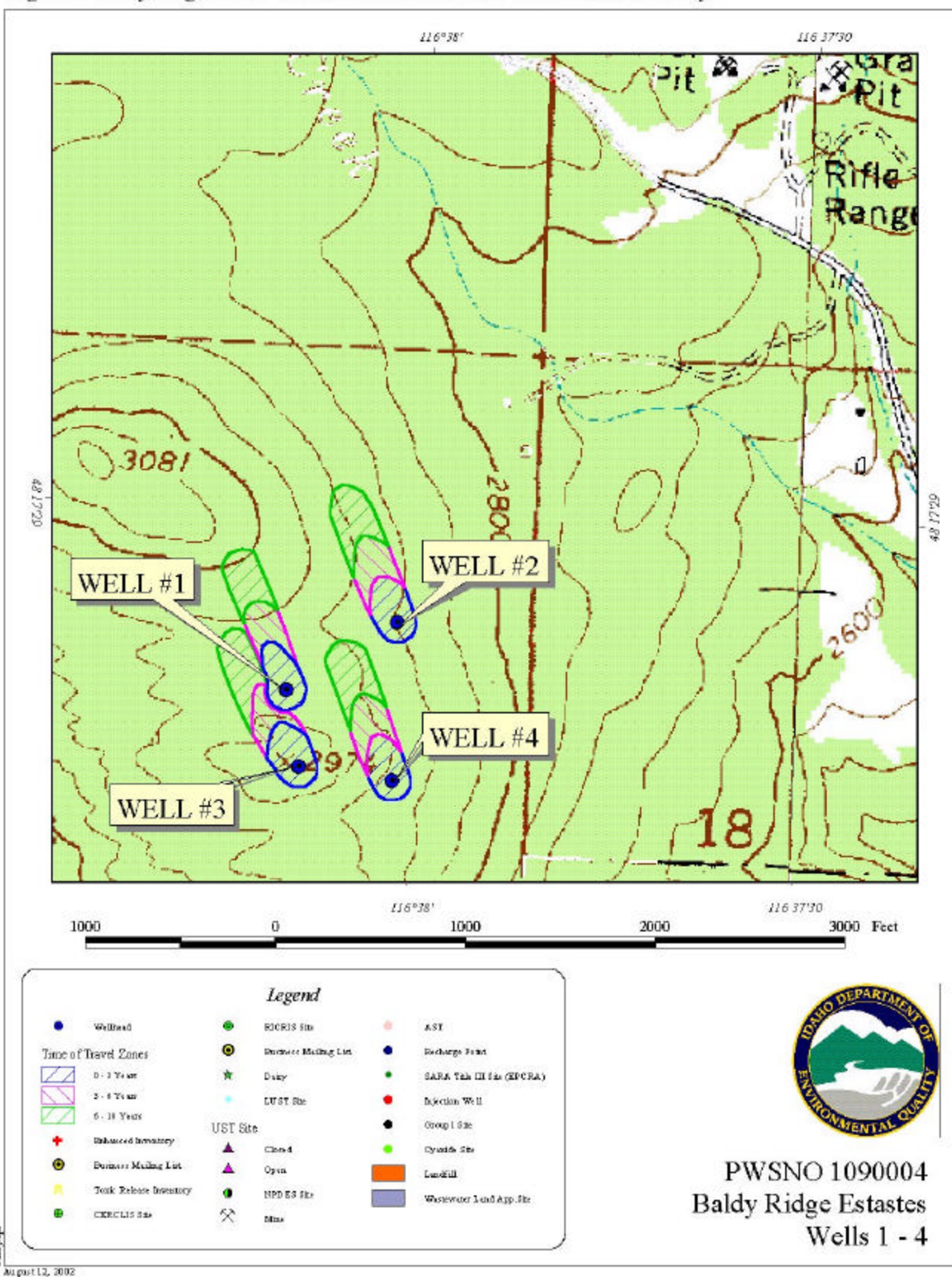
Construction features directly affect the ability of a well to protect the aquifer from contaminants. Lower scores imply a well that can better protect the water. This portion of the susceptibility analysis relies on information from individual well logs and from the most recent sanitary survey of the public water system. All 4 well logs for Baldy Ridge Estates are on file with DEQ. The last Sanitary Survey of the system was in 1995.

Baldy Ridge Estates Well #1 was drilled in 1980 to a depth of 250 feet. The 6-inch steel casing reaches from 12 inches above grade to 30 feet below, terminating in a lithologic stratum the well log describes as "rotten granite" that lies from 12 to 48 feet below the surface. The puddling clay surface seal is 20 feet deep. During drilling, the first water bearing stratum was encountered between 48 and 63 feet below the surface. The static water level in well is at minus 30 feet.

Well #2, is 130 feet deep with an 8-inch steel casing from 1 foot above ground to a depth of 20 feet. The surface seal is 18 feet deep. Both terminate in a water bearing granite stratum extending from 12 to 85 feet below ground. The well log reports the static water level at 20 feet below ground.

Well #3 is cased to 26 feet and sealed to 18 feet. Both intercept the rotten granite layer lying from 18 to 45 feet below ground at the well site. The total depth of the well is 210 feet. First ground water lies between 50 and 77 feet below the surface. Artesian pressure raises the static water level to 7 feet below ground.

Figure 2. Baldy Ridge Estates Delineation and Potential Contaminant Inventory.



Well #4 is 158 feet deep with a 6 inch casing extending from a foot above grade to a depth of 60 feet where it terminates in rock. The 18-foot deep surface seal ends in a permeable soil stratum composed of sand and gravel. Current Idaho Department of Water Resources standards require the seal to extend into the impervious rock formation above the water-bearing zone. Water was first encountered at a depth of 80 feet. The static water level in the well is 15 feet below land surface.

The 1995 sanitary survey noted that depressed areas around Wells #1, #2, and #4 needed to be filled and graded. Wells #1, #2 and #4 also needed to be fitted with watertight, vented well caps.

Hydrologic Sensitivity

The hydrologic sensitivity scores for all the Baldy Ridge Estates wells are 3 points out of 6 points possible. These scores reflect natural geologic conditions in the recharge zone as a whole and at the well sites. Information for this part of the analysis is derived from the soil classification inside the delineation boundaries and from the soil profile reported on the well log.

A 6 to 45 foot deep layer of permeable soil composed of sand, gravel and boulders lies over bedrock in the Baldy Ridge Estates recharge zones. The less permeable lower layers where the ground water is found help retard migration of contaminants toward the wells. The depth to first water in all the wells is less than 100 feet. Clay is found in the soil column in Well #3, but it does not form a thick, continuous layer capable of inhibiting vertical migration of contaminants.

Potential Contaminant Sources and Land Use

Most of the land in the Baldy Ridge Estates well recharge zone is undeveloped forest. Photos and sketches in the Public Water System file for Baldy Ridge Estates show houses, septic systems, and unpaved roads in the area near the wells. With sanitary setback requirements fulfilled, none of these are considered a significant potential contaminant source.

Historic Water Quality

Baldy Ridge Estates has no persistent water quality problems. The system tests monthly for total coliform bacteria. In the period from January 1997 through the present three monthly samples were positive, but the presence of total coliform bacteria was not confirmed in follow-up testing. Work on the system may have introduced bacteria into the distribution lines. Results of tests for chemical and radiological contaminants are summarized on Table 1.

Table 1 Baldy Ridge Estates Test Results

Primary IOC Contaminants (Mandatory Tests)							
Contaminant	MCL (mg/l)	Results (mg/l)	Dates	Contaminant	MCL (mg/l)	Results (mg/l)	Dates
Antimony	0.006	ND	11/10/94 to 12/19/01	Nitrate	10	ND	11/10/94 to 12/19/01
Arsenic	0.01	ND	11/10/94 to 12/19/01	Nickel	N/A	ND	11/10/94 to 12/19/01
Barium	2	0.03	12/11/2001	Selenium	0.05	ND	11/10/94 to 12/19/01
Beryllium	0.004	ND	11/10/94 to 12/19/01	Sodium	N/A	5.72, 7.12	3/3/1998, 12/11/2001
Cadmium	0.005	ND	11/10/94 to 12/19/01	Thallium	0.002	ND	11/10/94 to 12/19/01
Chromium	0.1	ND	11/10/94 to 12/19/01	Cyanide	0.02	ND	11/10/94 to 12/19/01
Mercury	0.002	ND	11/10/94 to 12/19/01	Fluoride	4.0	0.2	3/3/1998
Secondary and Other IOC Contaminants (Optional Tests)							
Contaminant	Recommended Maximum (mg/l)		Results (mg/l)			Dates	
Sulfate			1.7 to 2.2			11/30/1994 to 12/11/200	
Regulated and Unregulated Synthetic Organic Chemicals							
Contaminant			Results		Dates		
29 Regulated and 13 Unregulated Synthetic Organic Compounds			None Detected		11/23/94 to 11/06/01		
Regulated and Unregulated Volatile Organic Chemicals							
Contaminant			Results		Dates		
21 Regulated And 16 Unregulated Volatile Organic Compounds			None Detected		11/30/94 to 12/15/98		
Radiological Contaminants							
Contaminant		MCL	Results		Dates		
Gross Alpha, Including Ra & U		15 pC/l	0.7 to 2.0 pC/l		12/5/1994 to 4/24/01		
Gross Beta Particle Activity		4 mrem/year	2.4. to 3.3 mrem 3.9 pC/l		12/5/94 to 4/12/95 4/24/01		

*ND = None Detected. NA = Not Applicable

Final Susceptibility Ranking

Baldy Ridge Estates wells ranked moderately susceptible to all classes of regulated contaminants. Risk factors associated with local geology added the most points to the final susceptibility scores. Final scores and ranking relative to each class of contaminant are summarized on Table 2. A complete analysis worksheet for each well is in Attachment A.

The final scores for the susceptibility analysis were determined using the following formulas:

- 1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)
- 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.375)

The final ranking categories are as follows:

- 0 - 5 Low Susceptibility
- 6 - 12 Moderate Susceptibility
- > 13 High Susceptibility

Table 2. Summary of Baldy Ridge Estates Susceptibility Evaluation

Final Susceptibility Scores/ Ranking				
	IOC	VOC	SOC	Microbial
Well #1	5/Moderate	5/Moderate	5/Moderate	5/Moderate
Well #2	5/Moderate	5/Moderate	5/Moderate	5/Moderate
Well #3	5/Moderate	5/Moderate	5/Moderate	5/Moderate
Well #4	7/Moderate	7/Moderate	7/Moderate	7/Moderate

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

For Baldy Ridge Estates, drinking water protection efforts should focus on maintaining full compliance with *Idaho Rules for Public Drinking Water Systems*. The system needs to develop a written operations and maintenance schedule so important tasks are attended to routinely. Every water system should develop an emergency response plan. There is a simple fill-in-the-blanks form available on the DEQ website (www.deq.state.id.us/water/water1.htm) to guide systems through the emergency planning process.

In its own service area and in the capture zone for the wells, the Baldy Ridge Estates should promote ground water stewardship programs. Home*A*Syst and Farm*A*Syst for example are voluntary programs that help people assess environmental risks on their property and find technical support for making needed changes. The Internet has dozens of sites devoted to ground water stewardship programs that are tailored various age groups. 4H clubs in the area may be interested in undertaking water protection activities as a service project. The County Extension office is a resource for workshops devoted to topics like septic tank maintenance and proper household use of pesticides herbicides and fertilizer that would be useful in a rural neighborhood.

Partnerships with state and local agencies, businesses in the capture zone and neighboring landowners should also be established. Some of them may not be aware that their property is in a sensitive area where household, agricultural or business practices could have a negative impact on drinking water quality for the whole community. Due to the time involved with the movement of ground water, drinking water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

Assistance

Public water suppliers and users may call the following IDEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the IDEQ office for preliminary review and comments.

Coeur d'Alene Regional DEQ Office (208) 769-1422

State IDEQ Office (208) 373-0502

DEQ Website: www.deq.state.id.us/water/water1.htm

Water suppliers serving fewer than 10,000 persons may contact Melinda Harper of the Idaho Rural Water Association (208) 343-7001 for assistance with drinking water protection strategies.

References Cited

Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 1997. "Recommended Standards for Water Works."

Idaho Department of Agriculture, 1998. Unpublished Data.

Idaho Division of Environmental Quality, 1994. Ground Water and Soils Reconnaissance of the Lower Payette Area, Payette County, Idaho. Ground Water Quality Technical Report No. 5. Idaho Division of Environmental Quality. December 1994.

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Idaho Department of Environmental Quality, 1997. Design Standards for Public Drinking Water Systems. IDAPA 58.01.08.550.01.

Idaho Department of Water Resources, 1993. Administrative Rules of the Idaho Water Resource Board: Well Construction Standards Rules. IDAPA 37.03.09.

Natural Resource Conservation Service, 1991. Idaho Snake-Payette Rivers Hydrologic Unit Plan of Work. March 1991.

United States Geological Survey, 1986. Quality of Ground Water in the Payette River Basin, Idaho. United States Geological Survey. Water Resources Investigation Report 86-4013.

University of Idaho. 1986. Ground Water Resources in a Portion of Payette County, Idaho. Idaho Water Resources Research Institute. University of Idaho. Moscow, Idaho. April 1986.

Attachment A

Baldy Ridge Estates Susceptibility Analysis Worksheets

Ground Water Susceptibility

Public Water System Name : **BALDY RIDGE ESTATES**
 Public Water System Number : **1090004**

Source: **WELL #1**
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1. System Construction		SCORE			
Drill Date	2/6/80				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES 1995				
Well meets IDWR construction standards	YES	0			
Wellhead and surface seal maintained	NO	1			
Casing and annular seal extend to low permeability unit	YES	0			
Highest production 100 feet below static water level	NO	1			
Well located outside the 100 year flood plain	YES	0			
Total System Construction Score		2			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	YES	0			
Vadose zone composed of gravel, fractured rock or unknown	NO	0			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	NO	2			
Total Hydrologic Score		3			
3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback)		IOC	VOC	SOC	Microbial
		Score	Score	Score	Score
Land Use Zone 1A	UNDEVELOPED FOREST	0	0	0	0
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		0	0	0	0
Potential Contaminant / Land Use - ZONE 1B (3 YR. TOT)					
Contaminant sources present (Number of Sources)	NO	0	0	0	0
(Score = # Sources X 2) 8 Points Maximum		0	0	0	0
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0
Total Potential Contaminant Source / Land Use Score - Zone 1B		0	0	0	0
Potential Contaminant / Land Use - ZONE II (6 YR. TOT)					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Land Use Zone II	Less than 25% Agricultural Land	0	0	0	
Potential Contaminant Source / Land Use Score - Zone II		0	0	0	0
Potential Contaminant / Land Use - ZONE III (10 YR. TOT)					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of Zone	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III		0	0	0	0
Cumulative Potential Contaminant / Land Use Score		0	0	0	0
4. Final Susceptibility Source Score		5	5	5	.5
5. Final Well Ranking		Low	Low	Low	Low

Ground Water SusceptibilityPublic Water System Name : **BALDY RIDGE ESTATES**Source: **WELL #2**Public Water System Number : **1090004**

8/13/02 7:14:58 AM

1. System Construction		SCORE			
Drill Date	4/4/80				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES 1995				
Well meets IDWR construction standards	YES			0	
Wellhead and surface seal maintained	NO			1	
Casing and annular seal extend to low permeability unit	YES			0	
Highest production 100 feet below static water level	NO			1	
Well located outside the 100 year flood plain	YES			0	
Total System Construction Score				2	
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	YES			0	
Vadose zone composed of gravel, fractured rock or unknown	NO			0	
Depth to first water > 300 feet	NO			1	
Aquitard present with > 50 feet cumulative thickness	NO			2	
Total Hydrologic Score				3	
		IOC	VOC	SOC	Microbial
3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback)		Score	Score	Score	Score
Land Use Zone 1A		0	0	0	0
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		0	0	0	0
Potential Contaminant / Land Use - ZONE 1B (3 YR. TOT)					
Contaminant sources present (Number of Sources)	NO	0	0	0	0
(Score = # Sources X 2) 8 Points Maximum		0	0	0	0
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B		0	0	0	0
Total Potential Contaminant Source / Land Use Score - Zone 1B		0	0	0	0
Potential Contaminant / Land Use - ZONE II (6 YR. TOT)					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Land Use Zone II		0	0	0	
Potential Contaminant Source / Land Use Score - Zone II		0	0	0	0
Potential Contaminant / Land Use - ZONE III (10 YR. TOT)					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of Zone	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III		0	0	0	0
Cumulative Potential Contaminant / Land Use Score		0	0	0	0
4. Final Susceptibility Source Score		5	5	5	5
5. Final Well Ranking		Low	Low	Low	Low

Ground Water Susceptibility

Public Water System Name : **BALDY RIDGE ESTATES**
 Public Water System Number : **1090004**

Source: **WELL #3**
 8/13/02 7:15:12 AM

1. System Construction		SCORE			
Drill Date	5/12/80				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES 1995				
Well meets IDWR construction standards	YES	0			
Wellhead and surface seal maintained	NO	1			
Casing and annular seal extend to low permeability unit	YES	0			
Highest production 100 feet below static water level	NO	1			
Well located outside the 100 year flood plain	YES	0			
Total System Construction Score		2			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	YES	0			
Vadose zone composed of gravel, fractured rock or unknown	NO	0			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	NO	2			
Total Hydrologic Score		3			
		IOC	VOC	SOC	Microbial
3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback)		Score	Score	Score	Score
Land Use Zone 1A	UNDEVELOPED FOREST	0	0	0	0
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		0	0	0	0
Potential Contaminant / Land Use - ZONE 1B (3 YR. TOT)					
Contaminant sources present (Number of Sources)	NO	0	0	0	0
(Score = # Sources X 2) 8 Points Maximum		0	0	0	0
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B		0	0	0	0
Total Potential Contaminant Source / Land Use Score - Zone 1B		0	0	0	0
Potential Contaminant / Land Use - ZONE II (6 YR. TOT)					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Land Use Zone II		0	0	0	
Potential Contaminant Source / Land Use Score - Zone II		0	0	0	0
Potential Contaminant / Land Use - ZONE III (10 YR. TOT)					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of Zone	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III		0	0	0	0
Cumulative Potential Contaminant / Land Use Score		0	0	0	0
4. Final Susceptibility Source Score		5	5	5	5
5. Final Well Ranking		Low	Low	Low	Low

Ground Water SusceptibilityPublic Water System Name : **BALDY RIDGE ESTATES**Source: **WELL #4**Public Water System Number : **1090004**

8/13/02 7:15:27 AM

1. System Construction		SCORE			
Drill Date	4/15/81				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES 1995				
Well meets IDWR construction standards	NO	1			
Wellhead and surface seal maintained	NO	1			
Casing and annular seal extend to low permeability unit	CASING YES, SEAL NO	1			
Highest production 100 feet below static water level	NO	1			
Well located outside the 100 year flood plain	YES	0			
Total System Construction Score		4			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	YES	0			
Vadose zone composed of gravel, fractured rock or unknown	NO	0			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	NO	2			
Total Hydrologic Score		3			
		IOC	VOC	SOC	Microbial
3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback)		Score	Score	Score	Score
Land Use Zone 1A	UNDEVELOPED FOREST	0	0	0	0
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		0	0	0	0
Potential Contaminant / Land Use - ZONE 1B (3 YR. TOT)					
Contaminant sources present (Number of Sources)	NO	0	0	0	0
(Score = # Sources X 2) 8 Points Maximum		0	0	0	0
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
4 Points Maximum		0	0	0	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B		0	0	0	0
Total Potential Contaminant Source / Land Use Score - Zone 1B		0	0	0	0
Potential Contaminant / Land Use - ZONE II (6 YR. TOT)					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Land Use Zone II		0	0	0	
Potential Contaminant Source / Land Use Score - Zone II		0	0	0	0
Potential Contaminant / Land Use - ZONE III (10 YR. TOT)					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or Microbials	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of Zone	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III		0	0	0	0
Cumulative Potential Contaminant / Land Use Score		0	0	0	0
4. Final Susceptibility Source Score		7	7	7	7
5. Final Well Ranking		Moderate	Moderate	Moderate	Moderate

POTENTIAL CONTAMINANT INVENTORY

LIST OF ACRONYMS AND DEFINITIONS

AST (Aboveground Storage Tanks) – Sites with aboveground storage tanks.

BML (Business Mailing List)– This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as Superfund is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System)

– Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

Closed Or Open UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.